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DATA ANNOUNCEMENT BULLETIN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
**NATIONAL SPACE SCIENCE DATA CENTER/
WORLD DATA CENTER A FOR ROCKETS AND SATELLITES**
Code 601

Goddard Space Flight Center • Greenbelt, Maryland 20771

STATUS OF AVAILABILITY OF
ZOND 8 (1970-088A) LUNAR PHOTOGRAPHY

January 1976

INTRODUCTION

This *Data Announcement Bulletin* (DAB) announces the availability of selected Zond 8 photographs from the National Space Science Data Center/World Data Center A for Rockets and Satellites (NSSDC/WDC-A-R&S) and contains procedures for ordering these data:

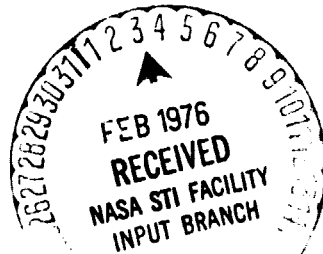
BACKGROUND

The Zond 8 spacecraft was launched on a lunar trajectory October 20, 1970, by the Soviet Union. After a 7-day flight, it splashed down on October 27, 1970, in the Indian Ocean. The mission objectives were:

- To conduct physical investigations along the flight path and in circumlunar space
- To photograph the lunar surface and the Earth and Moon from varying distances
- To test onboard systems, assemblies, and space vehicle design

PHOTOGRAPHY

NSSDC received nine paper prints of selected photographs taken from the Zond 8 spacecraft. From these prints, NSSDC produced 4- x 5-in. black and white negatives.



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STATUS OF AVAILABILITY OF
LUNAR PHOTOGRAPHY (NASA)
CSSL 22C

(NASA-TM-X-72591)
ZOND 8 (1970-088A)
4 p HC \$3.50

The photographs, which are generally of good quality, are available to researchers, either as 4- x 5-in. positives and negatives or as enlarged paper prints. They are available in two series of frames.

The first series -- frames 8-306, 12-306, 28-306, and 36-306 -- was taken October 24, 1970, during the lunar approach stage. The photographs reveal the Moon's Western Hemisphere (from 20°W long. to 160°W long.) with the sunset terminator passing along the 20°W long. line. In the upper right section, the Ocean of Storms (*Oceanus Procellarum*) appears and, below it, the Sea of Humors (*Mare Humorum*). The concentric basin of the Eastern Sea (*Mare Orientale*) appears to the left of the center. The main part of the lunar backside occupies the left section of the photographs. The following craters with coronas of light rays can be seen: Ohm, Olbers, Lenz, Byrgius, Kepler, Aristarchus, and Lowell. The photographic resolution is best in the center where it measures 500 m.

The second series -- frames 3-401, 7-401, 11-401, 15-401, and 17-401 -- was taken October 24, 1970, during the close flyby of the Moon while Zond 8 was traveling behind the Moon. In frames 3-401 and 7-401, the Earth is visible. The sunrise terminator passes through the Indian Ocean. Although cloud systems obscure the remaining regions, the Australian Continent is discernible.

The imagery of the lunar surface includes the *Mare Orientale* with the Cordillera and Rook Mountains surrounding it. Also visible is the surface formed by the dark lava from the *Mare Orientale* basin. Complicated by upward thrusts, this surface contains large craters. The crater which appears in the upper section of frame 17-401 has a diameter of 80 km. The grid of small crosses and the large cross, denoting the center of the frame, were plotted on the camera glass for photographic measurement purposes. Photographic resolution measures about 100 m.

SUPPORTING DATA

NSSDC did not receive any indexes or supporting data for these photographs.

ORDERING PROCEDURES

When ordering Zond 8 photographs from NSSDC, the researcher should identify the picture by frame number, form and size of reproduction needed, and the date by which the data are desired. If the request cannot be filled by the date desired, the researcher will be notified.

NSSDC requires knowledge of the scientific purpose for which the data provided will be used; therefore, a statement to this effect should be included in each request. NSSDC would also appreciate receiving copies of all publications resulting from studies in which data supplied by NSSDC have been used. It is further requested that NSSDC be acknowledged as the source of the data in all publications resulting from use of the data provided.

Requesters may view the Zond 8 pictures at NSSDC. United States researchers should address inquiries about or requests for pictures to:

National Space Science Data Center
Code 601.4
Goddard Space Flight Center
Greenbelt, Maryland 20771
Telephone: (301) 982-6695

Researchers outside the United States should direct their requests to:

World Data Center A for Rockets and Satellites
Code 601
Goddard Space Flight Center
Greenbelt, Maryland 20771, U.S.A.

NATIONAL SPACE SCIENCE DATA CENTER

Charge and Service Policy

The purpose of the National Space Science Data Center (NSSDC) is to provide data and information from space flight scientific experiments in support of additional studies beyond those performed by the principal investigators. Therefore, NSSDC will provide data and information upon request to any researcher or organization resident in the United States. In addition, the same services are available to researchers outside the United States through the World Data Center A for Rockets and Satellites (WDC-A-R&S). Normally, a charge is made for the requested data to cover the cost of reproduction and the processing of the request. The researcher will be notified of the cost, and payment must be received prior to processing the request. However, as resources permit, the Director of NSSDC/WDC-A-R&S may waive the charge for modest amounts of data for use in scientific studies or specific educational purposes when they are requested by a researcher affiliated with:

- . NASA installations, NASA contractors, or NASA grantees
- . Other United States Government agencies, their contractors, or their grantees
- . Universities or colleges
- . State and local governments
- . Nonprofit organizations